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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,588	11/10/2003	Henry Wong	Zywyn.02	6243
23616	7590	08/22/2005	EXAMINER	
LAW OFFICES OF CLEMENT CHENG 17220 NEWHOPE STREET #127 FOUNTAIN VALLEY, CA 92708			STERRETT, JEFFREY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,588

Applicant(s)

WONG ET AL.

Examiner

Jeffrey L. Sterrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The drawings are objected to because the lines of figure 3 are very faint and indistinct, in figure 3 reference character 310 seems to refer to nothing at all, figure 6 is missing whatever is supposed to be variable (a resistor?), and in figure 7 the input lines to op amp 450 are missing. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

Therefore, the regulated oscillator block 110 responsive to a boosted voltage level feedback as recited by claim 1 must be shown or the feature canceled from the claims.

Therefore, the switching device comprising a diode recited by claims 8 and 13 must be shown or the feature canceled from the claims.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. No new matter should be entered.

3. Claims 1-4, 8, and 13 are objected to because of the following informalities.

In line 8 of claim 1 "in a switch capacitor" makes little to no sense at all. Is this phrase an improper reference back to the switch capacitor block of line 7 or is it intended to be a new recitation of a switched capacitor? It is noted that in line 6 of claim 1 "controls" should simply be -control-.

In line 2 of claim 3 "VCC and VSS" should be deleted since reference characters from the figures should not be in the claims.

In lines 1 and 2 of claim 4 "the VDD and VSS voltage level" lacks proper antecedent basis.

Claims 8 and 13 are vague and indefinite because the language "can be" does not positively and distinctly set forth whether the switching device is or is not a diode but merely sets forth the possibility that the switching device could be a diode.

Appropriate correction is required.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-8, and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamagawa (US 5,532,916).

Tamagawa discloses a circuit comprising a regulated oscillator block (151) providing an oscillator frequency responsive to boosted voltage level feedback (+2VDD and -2VDD), a dual phase cycling block (149) outputting a set of control signals (O1, O2, and O3) responsive to the oscillator frequency, a switch capacitor block (figure 1 or

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10) providing a boosted voltage level (+2VDD and -2VDD) responsive to the control signals as recited by claims 1, 3, and 4.

Tamagawa discloses an apparatus comprising two output voltage terminals providing bipolar output voltages (+3VDD and -3VDD), at least two first switching devices (60, 63, 66, and 69) charging a first switching capacitor (57) to the first voltage equal to an unipolar input supply voltage (VDD), at least two second switching devices (67 and 70) charging a second switching capacitor (58) to the first voltage to provide a third voltage, a third switching capacitor (52 or 55) receiving and storing the first voltage, a fourth switching capacitor (59) receiving and storing the third voltage, and an oscillator (151) wherein at least one switching device is formed by a P channel MOSFET (129, 130, 133, or 134), a N channel MOSFET (131, 132, 135, 136, or 137), and an inverter (140 or 141) as recited by claims 5-8.

Tamagawa discloses a circuit comprising a first plurality of switching devices (60, 63, 66, and 69) charging a first transfer switching capacitor (57) to the first voltage equal to an unipolar input supply voltage (VDD), a second plurality of switching devices (67 and 70) charging a second switching capacitor (58) to the first voltage to provide a third voltage, a third switching capacitor (52 or 55) receiving and storing the first voltage, a fourth switching capacitor (59) receiving and storing the third voltage, and an oscillator (151) wherein at least one switching device is formed by a P channel MOSFET (129, 130, 133, or 134), a N channel MOSFET (131, 132, 135, 136, or 137), and an inverter (140 or 141) as recited by claims 10-13.

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 9, and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamagawa in combination with Yu (US 6,281,705).

Tamagawa discloses a circuit/apparatus as explained above and as recited by claims 2, 9, and 14 except for specifying that the device is integrated on a single silicon substrate. Yu discloses that integrating a circuit/apparatus on a single silicon substrate was an old and known expedient in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the circuit/apparatus of Tamagawa by integrating it on a single silicon substrate as taught by Yu in order to minimize the size of the circuit/apparatus in an old and known manner.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Szepesi et al (US 5,680,300), Forbes (US 6,021,056), Liu et al (US 6,707,280), and Yoshida et al (US 6,879,502) are cited to show circuit/apparatus old and known in the art at the time of the invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571)

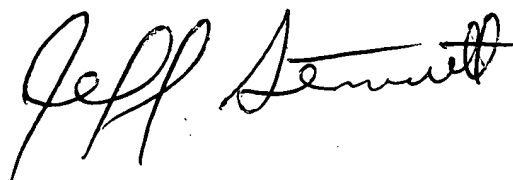
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272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett
Primary Examiner
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A handwritten signature in black ink, appearing to read "Jeff Sterrett", is written over the printed name and title.